



Billing Code: 3410-16

DEPARTMENT OF AGRICULTURE

Natural Resources Conservation Service

[Docket No. NRCS-2018-0006]

Notice of Recommended Standard Methods for use as Soil Health Indicator Measurements

AGENCY: Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture (USDA).

ACTION: Notice of availability of proposed technical note “Recommended Soil Health Indicators and Associated Laboratory Procedures” for public review and comment.

SUMMARY: Notice is hereby given of the intention of NRCS to issue a technical note on a group of recommended standard methods for soil health indicators selected by a collaborative multi-organizational effort, as described in the document. USDA/NRCS and partner efforts to assess soil health problems and impacts of management nationally, as part of conservation planning and implementation, will be facilitated if soil health indicators are measured using a standard set of methods. Soil health is defined as the capacity of the soil to function as a vital living ecosystem to sustain plants, animals, and humans. Six key soil physical and biological processes were identified that must function well in a healthy soil, and therefore would especially benefit from measurement methods standardization: (1) organic matter dynamics and carbon sequestration, (2) soil structural stability, (3) general microbial activity, (4) C food source, (5) bioavailable N, and (6) microbial community diversity. The chosen methods met several criteria including indicator effectiveness with respect to management sensitivity and process interpretability, ease of use, cost effectiveness, measurement repeatability, and ability to

be used for agricultural management decisions. The soil health indicator methods included are soil organic carbon (dry combustion), water-stable aggregation (Mikha and Rice, 2004), short-term mineralizable carbon, (Schindelbeck et al., 2016), four enzymes: β -glucosidase (Deng and Popova, 2011), N-acetyl- β -D-glucosaminidase (Deng and Popova, 2011), acid or alkaline phosphatase (Acosta-Martínez and Tabatabai, 2011), and arylsulfatase (Klose et al., 2011), permanganate oxidizable carbon (Schindelbeck et al. 2016), autoclaved citrate extractable (ACE) protein (Schindelbeck et al. 2016), and phospholipid fatty acid analysis (Buyer and Sasser 2012). Standard operating procedures to be used in laboratories have been provided in the appendices.

DATES: Applicable Date: This is Applicable [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Comment Date: Submit comments on or before [INSERT 90 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. A final version of this technical note will be published after the close of the 90-day period and after consideration of all comments.

ADDRESSES:

Obtaining Documents: You may download the draft Technical Note at <https://go.usa.gov/xUFJE>.

Comments should be submitted, identified by Docket Number NRCS-2018-0006, using any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Mail or hand-delivery:

Public Comments Processing
Attention: Regulatory and Agency Policy Team
Strategic Planning and Accountability
Natural Resources Conservation Service
5601 Sunnyside Avenue, Building 1-1112D
Beltsville, Maryland 20705

NRCS will post all comments on <http://www.regulations.gov>. In general, personal information provided with comments will be posted. If your comment includes your address, phone number, e-mail, or other personal identifying information (PII), your comments, including PII, may be available to the public. You may ask in your comment that your PII be withheld from public view, but this cannot be guaranteed.

FOR FURTHER INFORMATION CONTACT:

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Electronic copies can be downloaded or printed from <https://go.usa.gov/xUFJE>.

Requests for paper versions may be directed to:

Public Comments Processing
Attention: Regulatory and Agency Policy Team
Strategic Planning and Accountability
Natural Resources Conservation Service
5601 Sunnyside Avenue, Building 1-1112D
Beltsville, Maryland 20705

Signed this 28th day of August, 2018, in Washington, D.C.

Leonard Jordan,
Acting Chief,
Natural Resources Conservation Service.

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